UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,007	09/30/2003	Jaya L. Jeyaseelan	80107.075US1	4850

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EXAMINER
SMITH, SHEILA B

ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.
10/675,007</td><td>Applicant(s)
JEYASEELAN ET AL.</td></tr>
<tr><td>Examiner
Sheila B. Smith</td><td>Art Unit
2617</td><td></td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _05 May 2006_.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-30_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-30_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1.   Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over XP-

001103127 in view of Rudrapatna et al. (U.S. Patent Number 6,052,598).

Regarding claim 1, XP-001103127 discloses essentially all the claimed invention as set

fourth in the instant application, further XP-001103127 discloses on optimum time value of area

and timer based location registration scheme. In addition XP-001103127 discloses a method

comprising: comparing a metric against a threshold; and setting a timer to delay a roaming

attempt by a wireless network client (which reads on page 1 the introduction). However, the

reference XP-001103127 fails to disclose a determining a metric representing a quality of a

current association between a wireless network client and an access point.

In the same field of endeavor Rudrapatna et al. discloses a method for predicting the

location of a mobile station in a mobile communication network. In addition Rudrapatna et al.

discloses a determining a metric representing a quality of a current association between a

wireless network client and an access point as disclosed in column 1 lines 60-67 and column 2

lines 1-40.

Therefore, it would have been obvious to one of ordinary skill in the art at time the

invention was made to modify the reference XP-001103127 with determining a metric

representing a quality of a current association between a wireless network client and an access

point as taught by Rudrapatna et al. for the purpose of anticipating resource allocation needs of

the mobile unit.

Regarding claim 2, XP-001103127 discloses essentially all the claimed invention as set

fourth in the instant application, further XP-001103127 discloses on optimum time value of area

and timer based location registration scheme. In addition XP-001103127 discloses a metric

comprises a received signal strength indicator (which reads on page 2 the analytical model).

Regarding claim 3, XP-001103127 discloses essentially all the claimed invention as set

fourth in the instant application, further XP-001103127 discloses on optimum time value of area

and timer based location registration scheme. In addition XP-001103127 discloses a metric

comprises a current data rate (which reads on the entire document).

Regarding claim 4, XP-001103127 discloses essentially all the claimed invention as set

fourth in the instant application, further XP-001103127 discloses on optimum time value of area

and timer based location registration scheme. In addition XP-001103127 discloses a metric

comprises a number of packet retries (which reads on the entire document).

Regarding claim 5, XP-001103127 discloses essentially all the claimed invention as set

fourth in the instant application, further XP-001103127 discloses on optimum time value of area

and timer based location registration scheme. In addition XP-001103127 discloses a comparing a

plurality of metrics against a plurality of thresholds, and setting the timer in response (which

reads on the entire document).

Regarding claim 6, XP-001103127 discloses essentially all the claimed invention as set

fourth in the instant application, further XP-001103127 discloses on optimum time value of area

and timer based location registration scheme. In addition XP-001103127 discloses a metric

comprises a received signal strength indicator, and the threshold is dependent on the current data

rate (which reads on the entire document).

Regarding claim 7, XP-001103127 discloses essentially all the claimed invention as set

fourth in the instant application, further XP-001103127 discloses on optimum time value of area

and timer based location registration scheme. In addition XP-001103127 discloses a method

comprising setting a timer to one of a plurality of values to delay a roaming attempt by a mobile

station in a wireless network, wherein the mobile station attempts to roam after the timer expires

(which reads on page 1 the introduction).

Regarding claim 8, XP-001103127 discloses essentially all the claimed invention as set

fourth in the instant application, further XP-001103127 discloses on optimum time value of area

and timer based location registration scheme. In addition XP-001103127 discloses a timer

comprises comparing at least one metric to at least one threshold, and setting the timer in

response (which reads on page 2 the analytical model).

Regarding claim 9, XP-001103127 discloses essentially all the claimed invention as set

fourth in the instant application, further XP-001103127 discloses on optimum time value of area

and timer based location registration scheme. In addition XP-001103127 discloses the value to

which the timer is set is influenced by a perceived quality of a current association (which reads

on page 2 the analytical model).

Regarding claim 10, XP-001103127 discloses essentially all the claimed invention as set

fourth in the instant application, further XP-001103127 discloses on optimum time value of area

and timer based location registration scheme. In addition XP-001103127 discloses the perceived

quality of the current association is relatively low, the timer is set to a value that is relatively low (which reads on page 2 the analytical model).

Regarding claim 11, XP-001103127 discloses essentially all the claimed invention as set fourth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses the perceived quality of the current association is relatively high, the timer is set to a value that is relatively high (which reads on page 2 the analytical model).

Regarding claim 12, XP-001103127 discloses essentially all the claimed invention as set fourth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses a timer comprises setting a hardware timer (which reads on page 2 the analytical model).

Regarding claim 13, XP-001103127 discloses essentially all the claimed invention as set fourth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses setting a timer comprises setting a software timer (which reads on page 2 the analytical model).

Regarding claim 14, XP-001103127 discloses essentially all the claimed invention as set fourth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses a first metric to a first threshold and conditionally setting a timer to a first value; comparing a second metric to a second threshold and conditionally setting the timer to a second value; and attempting to roam when the timer expires (which reads on page 1 the introduction).

Regarding claim 15, XP-001103127 discloses essentially all the claimed invention as set fourth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses the first metric comprises a data rate (which reads on page 1 the introduction).

Regarding claim 16, XP-001103127 discloses essentially all the claimed invention as set fourth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses first threshold corresponds to the lowest possible data rate (which reads on page 2 the analytical model).

Regarding claim 17, XP-001103127 discloses essentially all the claimed invention as set fourth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses the second metric comprises a received signal strength indicator (which reads on page 1 the introduction).

Regarding claim 18, XP-001103127 discloses essentially all the claimed invention as set fourth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses the second threshold is dependent on the current data rate (which reads on page 2 the analytical model).

Regarding claim 19, XP-001103127 discloses essentially all the claimed invention as set fourth in the instant application, further XP-001103127 discloses on optimum time value of area and timer based location registration scheme. In addition XP-001103127 discloses the second value is larger than the first value (which reads on page 1 the introduction).

Regarding claim 20, XP-001103127 discloses essentially all the claimed invention as set fourth in the instant application, further XP-001103127 discloses on optimum time value of area

and timer based location registration scheme. In addition XP-001103127 discloses comparing a

percentage of missed beacons to a threshold, and conditionally attempting to roam in response

(which reads on page 1 the introduction).

   Regarding claim 21, XP-001103127 discloses essentially all the claimed invention as set

fourth in the instant application, further XP-001103127 discloses on optimum time value of area

and timer based location registration scheme. In addition XP-001103127 discloses a apparatus

including a medium adapted to hold machine-accessible instructions that when accessed result in

a machine performing: comparing a first metric to a first threshold and conditionally setting a

timer to a first value; comparing a second metric to a second threshold and conditionally setting

the timer to a second value; and attempting to roam when the timer expires (which reads on page

1 the introduction).

   Regarding claim 22, XP-001103127 discloses essentially all the claimed invention as set

fourth in the instant application, further XP-001103127 discloses on optimum time value of area

and timer based location registration scheme. In addition XP-001103127 discloses the first

metric comprises a data rate (which reads on page 1 the introduction).

   Regarding claim 23, XP-001103127 discloses essentially all the claimed invention as set

fourth in the instant application, further XP-001103127 discloses on optimum time value of area

and timer based location registration scheme. In addition XP-001103127 discloses the first

threshold corresponds to the lowest possible data rate (which reads on page 1 the introduction).

   Regarding claim 24 XP-001103127 discloses essentially all the claimed invention as set

fourth in the instant application, further XP-001103127 discloses on optimum time value of area

and timer based location registration scheme. In addition XP-001103127 discloses the second

metric comprises a received signal strength indicator (which reads on page 1 the introduction).

Regarding claim 25, XP-001103127 discloses essentially all the claimed invention as set

fourth in the instant application, further XP-001103127 discloses on optimum time value of area

and timer based location registration scheme. In addition XP-001103127 discloses a apparatus

comprising: a radio interface to interact with a wireless network; and a processor coupled to the

radio interface, wherein the processor is adapted to set a timer based on a perceived quality of a

current association, and further adapted to attempt roaming when the timer expires (which reads

on page 1 the introduction).

Regarding claim 26, XP-001103127 discloses essentially all the claimed invention as set

fourth in the instant application, further XP-001103127 discloses on optimum time value of area

and timer based location registration scheme. In addition XP-001103127 discloses the timer is at

least partially implemented in hardware (which reads on page 2 the analytical model).

Regarding claim 27, XP-001103127 discloses essentially all the claimed invention as set

fourth in the instant application, further XP-001103127 discloses on optimum time value of area

and timer based location registration scheme. In addition XP-001103127 discloses the timer is at

least partially implemented in software (which reads on page 2 the analytical model).

Regarding claim 28, XP-001103127 discloses essentially all the claimed invention as set

fourth in the instant application, further XP-001103127 discloses on optimum time value of area

and timer based location registration scheme. In addition XP-001103127 discloses a electronic

system comprising: an omni-directional antenna; a radio interface coupled to the omni-

directional antenna to interact with a wireless network; and a processor coupled to the radio

interface, wherein the processor is adapted to set a timer based on a perceived quality of a current

association, and further configured to attempt roaming when the timer expires (which reads on

page 1 the introduction).

Regarding claim 29, XP-001103127 discloses essentially all the claimed invention as set

fourth in the instant application, further XP-001103127 discloses on optimum time value of area

and timer based location registration scheme. In addition XP-001103127 discloses the timer is at

least partially implemented in hardware (which reads on page 2 the analytical model).

Regarding claim 30, XP-001103127 discloses essentially all the claimed invention as set

fourth in the instant application, further XP-001103127 discloses on optimum time value of area

and timer based location registration scheme. In addition XP-001103127 discloses the timer is at

least partially implemented in software (which reads on page 2 the analytical model).

Response to Arguments

2.   Applicant's arguments with respect to claims 1-30 have been considered but are moot in

view of the new ground(s) of rejection.

Conclusion

3.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Sheila B. Smith whose telephone number is (571)272-7847. The

examiner can normally be reached on Monday-Thursday 6:00 am - 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S. Smith
July 8, 2006

JOSEPH FEILD
SUPERVISORY PATENT EXAMINER